



ISOMETRIC VIEW

NOTES:

- 1. USE COATED DEFORMED REINFORCING STEEL BARS CONFORMING TO AASHTO M 284 OR M 111 AND M 31 GRADE 60 RESPECTIVELY.
- 2. FIELD CUT AND BEND REINFORCING STEEL AS NECESSARY TO CLEAR PIPES AND MAINTAIN 2" COVER. REPAIR ANY DAMAGE OR CUTS TO THE EPOXY COATING ON REINFORCING BARS.
- 3. USE CLASS AA (AE) CONCRETE.
- 4. USE TYPE II CEMENT (LOW ALKALI).
- 5. PROVIDE 2" CONCRETE COVER TO REINFORCING STEEL.
- 6. FOR NUMBER, LOCATION, AND SIZE OF PIPE SEE ROADWAY PLANS.
- 7. PROVIDE 3/4" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
- 8. FOR GRATE AND FRAME SEE STD DWG GF 13.
- 9. CENTER PIPE IN BOX OPENING. USE APPROVED NON-SHRINK GROUT TO SEAL OPENING AROUND PIPE OR USE APPROVED PIPE MANUFACTURER'S PIPE BOOT.
- 10.SIZE BOX HEIGHT TO MEET MINIMUM COVER FOR PIPE USED. SEE STD DWG DG 4.

DESIGN DATA

HS 20 STANDARD SPECIFICATION FOR HIGHWAY BRIDGES $17^{\,\mathrm{TM}}$ EDITION.

STRUCTURAL STEEL Fy = 36.000 psi STRUCTURAL CONCRETE f'c = 4.000 psi Fy = 60.000 psi n = 8

REINFORCING STEEL LAYOUT				
PROVIDE 2" MIN. COVER TO ALL BARS				
BAR A	BAR B	BAR C	BAR D	BAR E
		8"		

CB 4